

Title (en)

METHOD FOR PREPARING THE START-UP OF AN INTERNAL COMBUSTION ENGINE BY MEANS OF A BELT-DRIVEN STARTER GENERATOR

Title (de)

VERFAHREN ZUM VORBEREITEN DES STARTENS EINES VERBRENNUNGSMOTORS DURCH EINEN RIEMENGETRIEBENEN STARTERGENERATOR

Title (fr)

PROCÉDÉ DE PRÉPARATION DU DÉMARRAGE D'UN MOTEUR À COMBUSTION INTERNE PAR UN DÉMARREUR-DYNAMO À TRANSMISSION PAR COURROIE

Publication

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Application

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Abstract (en)

[origin: WO2013131680A1] The invention relates to a method for preparing the start-up of an internal combustion engine (300) by means of a belt-driven starter generator (100), which has a stator winding (11) and a rotor winding (12), wherein the starter generator (100) is operated such that the generated torque thereof gradually increases over a duration of more than two rotor winding time constants. Current is fed to the stator winding (11) in such a manner that the generated torque gradually increases over a duration of more than two rotor winding time constants. Current is fed to the rotor winding (12) and, if an excitation current through the rotor winding (12) is below a lower threshold before the current feed, the stator winding (11) is fed with current before the excitation current is above an upper threshold. According to the invention, the belt of the starter generator is pretensioned prior to the actual starting process by means of actuation of the electrical machine and thus lurches, vibrations and noises that occur during the start-up of the internal combustion engine by means of a starter generator can be prevented.

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